

NEW SYNONYMY OF *SUILLIA SORORCULA* CZERNY (DIPTERA: HELEOMYZIDAE)¹

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ABSTRACT: Comparison of specimens from the type locality with species descriptions and examination of variation in reared specimens indicates *Suillia thomsoni* Gill and *S. sororcula* Czerny, heretofore considered distinct populations are conspecific and take the senior name, *S. sororcula* Czerny.

The genus *Suillia* (Diptera: Heleomyzidae), though Holarctic in distribution, has received more attention in Europe and Asia than in the Americas, perhaps because at least one Palearctic species has attained pest status. The Nearctic members of *Suillia* north of Mexico were treated briefly by Steyskal (1944) and more recently by Gill (1962) in his comprehensive revision of the family Heleomyzidae. During investigations of suilline biology, I discovered the following synonymy and here propose its solution.

Gill (1962) and Steyskal (1944) considered as distinct species *Suillia thomsoni* Gill (= *limbata* (Thomson); see Gill, 1965) and *S. sororcula* Czerny. Due to loss of the only type specimen of *S. sororcula*, both Gill and Steyskal were forced to rely upon the original and sometimes confusing description of Czerny (1926) for their concept of this species. Unfortunately, while Czerny had also discussed *S. thomsoni* in 1924, he never provided a differential diagnosis or key for the two species.

In his analysis of *S. sororcula*, Gill (1962) utilized several specimens collected from the type locality (San Mateo Co., Calif.) and adjacent counties (Contra Costa and Marin). They appeared distinct from *S. thomsoni* and seemed to fit Czerny's description of *S. sororcula*. The differences reported were intensity of body color (paler in *S. sororcula*), pattern and color of pigmentation, width of the cheeks (narrower in *S. sororcula*), cheek to eye ratio (smaller in *S. sororcula*), eye height and width (eye higher than wide in *S. sororcula*), number of rows of buccal setae (only one row in *S. sororcula*), and degree of wing infuscation (less in *S. sororcula*). As Gill noted, the species were otherwise similar even to their genitalia.

Steyskal (1944) differentiated the two species on the basis of head height and width (head higher than wide in *S. sororcula*), eye shape (more oval vertically in *S. sororcula*), degree of spotting on dorsum of thorax (more so in *S. sororcula*), and wing infuscation. Genitalia were not utilized.

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I compared 28 specimens identified as *S. sororcula* from Marin Co., California and 1 from Corvallis, Oregon (from collections of Calif. Ins. Surv., Calif. Acad. Sci., and Wash. St. Univ., various collectors, some determined by G.D. Gill) with numerous specimens of *S. thomsoni* from the Pacific states and Idaho (Wash. St. Univ. collection, various collectors, some determined by G.D. Gill). I found the above criteria utilized by Gill and Steyskal to be unreliable in affirming the majority of these identifications, many specimens previously identified as *S. sororcula* fitting the description of *S. thomsoni* better than specimens previously identified as *S. thomsoni*. Furthermore, examinations of many specimens (F_1 and F_2) reared by the author as *S. thomsoni* from females (P) collected in Marin Co., Calif. and Latah Co., Idaho, revealed great enough intersibling and intraspecific variation to obviate use of these characters. This was especially true of male genitalia, distinctive and useful in distinguishing other Holarctic *Suillia* spp.

It seems most likely the holotype was merely a light-bodied form of *S. thomsoni*. Subsequent determinations of "sororcula" were attempts to relate other light-bodied forms of this species to Czerny's description of *S. sororcula* while maintaining "thomsoni" (or "limbata") for the darker form.

Because of the failure of the above criteria, especially genitalia, to consistently separate two populations and because of variability revealed by breeding experiments, I feel that *S. sororcula* Czerny and *S. thomsoni* Gill are conspecific. Since *S. sororcula* Czerny is older, it becomes the senior synonym, and the species including all variants becomes *Suillia sororcula* Czerny.

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